



GB/T 13814 —

AWS A5.11 ENiCrFeSi-1

EN ISO 14172 —

AK ENiCrFeSi-1

Description: ENiCrFeSi-1 is a nickel-chromium-iron-silicon SMAW electrode with nominal weld metal of about 46Ni-28Cr-23Fe-2.75Si. It is designed for welding UNS N06045 and for joining nickel-chromium-iron alloys to steel or other nickel-base alloys, with suitability for heat- and corrosion-resisting service.

Application: This product is well suited to fabrication and repair of UNS N06045 components, as well as dissimilar joints between Ni-Cr-Fe alloys, steels, and other nickel alloys. It is a practical choice where reliable weld integrity is needed in heat-resisting and corrosion-resisting equipment or structures.

Typical Chemical Composition(%):

	C	Mn	Fe	P	S	Si	Cu	Ni	Co
Requirement	0.05-0.20	2.50	21.0-25.0	0.040	0.030	2.50-3.0	0.30	Rem.	1.0
Actual Result	0.12	1.95	22.37	0.010	0.010	2.86	0.10	Rem.	0.52
	Al	Ti	Cr	Nb+Ta	Mo	V	W	La	B
Requirement	0.30	---	26.0-29.0	---	---	---	---	---	---
Actual Result	0.10	---	27.85	---	---	---	---	---	---

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥620		20	
Actual Result	672		26	